Cement, Concrete, and Aggregates
Table of Contents, Volume 3
1981

No. 1, Summer

The Action and Application of Two New ASTM Specifications for Shrinkage-Compensating Cement in Concrete: ASTM C 845 and C 878—R. J. GULYAS AND M. F. GARRETT 3
Relative Resistance of Rained-On Concrete Pavements to Abrasion, Skidding, and Scaling—S. H. DAHIR 13
An Experimental Technique for Obtaining Complete Stress-Strain Curves for High Strength Concrete—S. P. SHAH, ULKER GOKOZ, AND FARHAD ANSARI 21
Investigation of ASTM Paste and Mortar Bleeding Tests—B. G. KEMP 28
Proportioning of Coarse Aggregate for Conventionally and Gap-Graded Concrete—D. O. EHRENBURG 37
Symposium on Durability of Concrete—I
Evaluation for Durability and Strength Development of a Ground Granulated Blast Furnace Slag—F. J. HOGAN AND J. W. MEUSEL 40
Condition of Concrete in Martin Dam After 50 Years of Service—KATHARINE MATHER 53
Influence of Pozzolanic, Slag, and Chemical Admixtures on Pore Size Distribution and Permeability of Hardened Cement Pastes—D. MANMOHAN AND P. K. MEHTA 63
Laboratory Workshop—State of Solutes in Contact with Hydrating Tricalcium Silicate Pastes—MARIA PUNZET-KARPISEK 68
Book Reviews 71
Testing Forum 73

No. 2, Winter

Inertial Effects in the Instrumented Impact Testing of Cementitious Composites—W. SUARIS AND S. P. SHAH 77
Flexural Fatigue of Polymer Concrete—G. A. WOELFL, M. MCNERNEY, AND C. J. CHANG 84
Use of the Maleic Acid Method for the Determination of Cement Content of Concrete—S. L. MARUSIN 89
Symposium of Durability of Concrete—II
Abrasion-Erosion Resistance of Fiber-Reinforced Concrete—T. C. LIU AND J. E. MCDONALD 93
The Effect of Fly Ash on Concrete Alkali-Aggregate Reaction—E. R. DUNSTAN, JR. 101
US-USSR Joint Seminar
Attack of Aggressive Fluids—F. M. IVANOV 105
Production of Artificial Porous Aggregates from Fuel-Containing Industrial Wastes in the USSR—G. P. IVANENKO AND S. G. VASILKOV 108
Book Reviews 111
Testing Forum 112

Cement, Concrete, and Aggregates
Index to Volume 3
1981

A–B

Abrasion: Abrasion-erosion resistance of fiber-reinforced concrete (Liu and McDonald), Winter, 93

Abrasion resistance: Relative resistance of rained-on concrete pavements to abrasion, skidding, and scaling (Dahir), Summer, 13

Aggregates
- Abrasion-erosion resistance of fiber-reinforced concrete (Liu and McDonald), Winter, 93
- Proportioning of coarse aggregate for conventionally and gap-graded concrete (Ehrenburg), Summer, 37

Aggressive attack of fluid: Attack of aggresive fluids (Ivanov), Winter, 105

Alkali aggregate reactions: Effect of fly ash on concrete alkali-aggregate reaction (Dunstan), Winter, 101

Anions: State of solutes in concrete with hydrating tricalcium silicate pastes (Punzet-Karpisek), Summer, 68

Aqueous electrolytes: State of solutes in concrete with hydrating tricalcium silicate pastes (Punzet-Karpisek), Summer, 68

Ansari, F.: *see* Shah, S. P., Gokoz, U., and Ansari, F.

Area: Proportioning of coarse aggregate for conventionally and gap-graded concrete (Ehrenburg), Summer, 37

Ashes: Production of artificial porous aggregates from fuel-containing industrial wastes in the USSR (Ivanenko and Vasilkov), Winter, 108

Book reviews
- *Expansion Concrete* by American Concrete Institute (Kelly), Winter, 111
- *High Strength Concrete* by Shah (Popovics), Winter, 111
- *New Concrete Technologies and Building Design* by Neville and Chatterton (Faber), Summer, 72
- *Performance of Concrete in Marine Environment* by Malhotra (Cady), Summer, 71
- *Progress in Concrete Technology* by Malhotra (Mather), Summer, 71

By-products: Production of artificial porous aggregates from fuel-containing industrial wastes in the USSR (Ivanenko and Vasilkov), Winter, 108

C

Cady, P. D.: Review of *Performance of Concrete in Marine Environment* by Malhotra, Summer, 71

Carbon tetrachloride: Investigation of ASTM paste and mortar bleeding tests (Kemp), Summer, 28

Cements: Use of the maleic acid method for the determination of cement content of concrete (Marusin), Winter, 89

Chang, C. J.: *see* Woelfl, G. A., McNerney, M., and Chang, C. J.

Chemical properties: Effect of fly ash on concrete alkali-aggregate reaction (Dunstan), Winter, 101

Compression tests: Experimental technique for obtaining complete stress-strain curves for high strength concrete (Shah, Gokoz, and Ansari), Summer, 21

Compressive strength: Abrasion-erosion resistance of fiber-reinforced concrete (Liu and McDonald), Winter, 93

Concrete dams: Condition of concrete in Martin Dam after 50 years of service (Mather), Summer, 53

Concrete durability
- Attack of aggressive fluids (Ivanov), Winter, 105
- Condition of concrete in Martin dam after 50 years of service (Mather), Summer, 53

Concrete pavements: Relative resistance of rained-on concrete pavements to abrasion, skidding, and scaling (Dahir), Summer, 13

Concretes
- Inertial effects in the instrumented impact testing of cementitious composites (Suaris and Shah), Winter, 77
- Influence of pozzolanic, slag, and chemical admixtures on pore size distribution and permeability of hardened cement pastes (Manmohan and Mehta), Summer, 63

D–H

Dahir, S. H.: Relative resistance of rained-on concrete pavements to abrasion, skidding, and scaling, Summer, 13

Dunstan, E. R.: Effect of fly ash on concrete alkali-aggregate reaction, Winter, 101

Ehrenburg, D. O.: Proportioning of course aggregate for conventionally and gap-graded concrete, Summer, 37

Faber, J. H.: Review of *New Concrete Technologies and Building Design* by Neville and Chatterton, Summer, 72

Fatigue (materials): Flexural fatigue of polymer concrete (Woelfl, McNerney, and Chang), Winter, 84

Flotation: Investigation of ASTM paste and mortar bleeding tests (Kemp), Summer, 28

Free water: Use of the maleic acid method for the determination of cement content of concrete (Marusin), Winter, 89

Garrett, M. F.: *see* Gulyas, R. J. and Garrett, M. F.

Gokoz, U.: *see* Shah, S. P., Gokoz, U., and Ansari, F.

Granular materials: Evaluation for durability and strength development of a ground granulated blast furnace slag (Hogan and Meusel), Summer, 40

Gulyas, R. J. and Garrett, M. F.: Action and application of two new ASTM specifications for shrinkage-compensating cement in concrete: ASTM C 845 and C 878, Summer, 3

High strength concretes: Experimental technique for obtaining complete stress-strain curves for high strength concrete (Shah, Gokoz, and Ansari), Summer, 21

Hogan, F. J. and Meusel, J. W.: Evaluation for durability and strength development of a ground granulated blast furnace slag, Summer, 40

Hydration: State of solutes in concrete with hydrating tricalcium silicate pastes (Punzet-Karpisek), Summer, 68

I–L

Impact tests: Inertial effects in the instrumented impact testing of cementitious composites (Suaris and Shah), Winter, 77

Industrial wastes: Production of artificial porous aggregates from fuel-containing industrial wastes in the USSR (Ivanenko and Vasilkov), Winter, 108

Ivanenko, G. P. and Vasilkov, S. G.: Production of artificial porous aggregates from fuel-containing industrial wastes in the USSR, Winter, 108

Ivanov, F. M.: Attack of aggresive fluids, Winter, 105

Kelly, J. E., III: Review of *Expansion Cement SP-64* by American Concrete Institute, Winter, 111

Kemp, B. G.: Investigation of ASTM paste and mortar bleeding tests, Summer, 28

Liu, T. C. and McDonald, J. E.: Abrasion-erosion resistance of fiber-reinforced concrete, Winter, 93

M

Maleic acid: Use of the maleic acid method for the determination of cement content of concrete (Marusin), Winter, 89

Manmohan, D. and Mehta, P. K.: Influence of pozolanic, slag, and chemical admixtures on pore size distribution and permeability of hardened cement pastes, Summer, 63

Marusin, S. L.: Use of the maleic acid method for the determination of cement content of concrete, Winter, 89

Mather, B.: Review of *Progress in Concrete Technology* by Malhotra, Summer, 71

Mather, K.: Condition of concrete in Martin Dam after 50 years of service, Summer, 53

McDonald, J. E.: *see* Liu, T. C. and McDonald, J. E.
McNerney, M.: *see* Woelfl, G. A., McNerney, M., and Chang, C. J.
Mechanical properties: Condition of concrete in Martin Dam after 50 years of service (Mather), Summer, 53
Mehta, P. K.: *see* Manmohan, D. and Mehta, P. K.
Meusel, J. W.: *see* Hogan, F. J. and Meusel, J. W.
Modulus of rupture tests: Flexural fatigue of polymer concrete (Woelfl, McNerney, and Chang), Winter, 84
Mortars (material): Investigation of ASTM paste and mortar bleeding tests (Kemp), Summer, 28

P

Permeability: Influence of pozzolanic, slag, and chemical admixtures on pore size distribution and permeability of hardened cement pastes (Manmohan and Mehta), Summer, 63
Popovics, S.: Review of *High Strength Concrete* by Shah, Winter, 111
Portland cements
Evaluation for durability and strength development of a ground granulated blast burnace slag (Hogan and Meusel), Summer, 40
Action and application of two new ASTM specifications for shrinkage-compensation cement in concrete: ASTM C 845 and C 878 (Gulyas and Garrett), Summer, 3
Effect of fly ash on concrete alkali-aggregate reaction (Dunstan), Winter, 101
Influence of pozzolanic, slag, and chemical admixtures on pore size distribution and permeability of hardened cement pastes (Manmohan and Mehta), Summer, 63
Probability: Flexural fatigue of polymer concrete (Woelfl, McNerney, and Chang), Winter, 84
Proportioning: Proportioning of coarse aggregate for conventionally and gap-graded concrete (Ehrenburg), Summer, 37
Punzet-Karpisek, M.: State of solutes in contact with hydrating tricalcium silicate pastes, Summer, 68

S–W

Shah, S. P.
Gokoz, U., and Ansari, F.:
Experimental technique for obtaining complete stress-strain curves for high strength concrete, Summer, 21
see Suaris, W. and Shah, S. P.
Skid resistance: Relative resistance of rained-on concrete pavements to abrasion, skidding, and scaling (Dahir), Summer, 13
Slags: Evaluation for durability and strength development of a ground granulated blast furnace slag (Hogan and Meusel), Summer, 40
Strain rate: Inertial effects in the instrumented impact testing of cementitious composites (Suaris and Shah), Winter, 77
Strains: Action and application of two new ASTM specifications for shrinkage-compensating cement in concrete: ASTM C 845 and C 878 (Gulyas and Garrett), Summer, 3
Stress strain diagrams: Experimental technique for obtaining complete stress-strain curves for high strength concrete (Shah, Gokoz, and Ansari), Summer, 21
Stresses: Action and application of two new ASTM specifications for shrinkage-compensation cement in concrete: ASTM C 845 and C 878 (Gulyas and Garrett), Summer, 3
Suaris, W. and Shah, S. P.: Inertial effects in the instrumented impact testing of cementitious composites, Winter, 77
Vasilkov, S. G.: *see* Ivanenko, G. P. and Vasilkov, S. G.
Water: Attack of aggresive fluids (Ivanov), Winter, 105
Woelfl, G. A., McNerney, M., and Chang, C. J.: Flexural fatigue of polymer concrete, Winter, 84